

NECAP Science 2014 Grade 4 Release Item Prediction Chart

Item	DOK	Domain	Target	Prediction
1	2	Physical Science	PS1-1 Students will collect and organize data about physical properties in order to classify objects or draw conclusions about objects and their characteristic properties (e.g., temperature, color, size, shape, weight, texture, flexibility)	
2	2	Physical Science	PS2-6 Students will experiment, observe, or predict how heat might move from one object to another	
3	2	Physical Science	PS3-8 Students will use observations of magnets in relation to other objects to describe the properties of magnetism (i.e., attract or repel certain objects or has no effect)	
4	2	Earth/Space Science	ESS1-3 Students will explain how the use of scientific tools helps to extend senses and gather data about weather (i.e., weather/wind vane: direction; wind sock: wind intensity; anemometer: speed; thermometer: temperature; meter sticks/rulers: snow depth; rain gauges: rain amount in inches).	
5	2	Earth/Space Science	ESS1-4 Students will explain how wind, water, or ice shape and reshape the Earth's surface.	
6	2	Earth/Space Science	ESS1-6 Students will use given information about Earth materials, explain how their characteristics lend themselves to specific uses.	
7	2	Earth/Space Science	ESS1-2 Students will use results from an experiment to draw conclusions about how water interacts with earth materials (e.g., percolation, erosion, frost heaves).	
8	2	Life Science	LS1-1 Students will sort/classify different living things using similar and different characteristics. Describe why organisms belong to each group or cite evidence about how they are alike or not alike.	
9	2	Life Science	LS2-5 Students will recognize that energy is needed for all organisms to stay alive and grow or identify where a plant or animal gets its energy.	
10	2	Life Science	LS3-7 Students will use information (data or scenario), explain how changes in the environment can cause organisms to respond (e.g., survive there and reproduce, move away, die).	

NECAP Science 2014 Grade 4 Inquiry Items Prediction Chart

Item	DOK	Domain	Target	Prediction
1	2	Inquiry	INQ 8 Use accepted methods for organizing, representing, and manipulating data.	
2	3	Inquiry	INQ 12 Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis	
3	2	Inquiry	INQ 9 Collect sufficient data to study question, hypothesis, or relationships.	
4	2	Inquiry	INQ 6 Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation	
5	3	Inquiry	INQ 13 Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations.	
6	2	Inquiry	INQ 1 Analyze information from observations, research, or experimental data for the purpose of formulating a question, hypothesis, or prediction.	
7	3	Inquiry	INQ 4 Identify information/evidence that needs to be collected in order to answer the question, hypothesis, prediction.	
8	3	Inquiry	INQ 13 Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations.	